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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/887,369	06/22/2001	Orbin F. Sumrall	A-0103.04	7027

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EXAMINER

DAVIS, ROBERT B

ART UNIT	PAPER NUMBER
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1722

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/887,369

Applicant(s)

SUMRALL ET AL

Examiner

Robert B. Davis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-81 is/are pending in the application.
- 4a) Of the above claim(s) 70-81 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 19, 26-29, 43, 44, 55 and 58-69 is/are rejected.
- 7) ☒ Claim(s) 2-18, 20-25, 30-42, 45-54, 56 and 57 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/22/2001.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-69, drawn to an apparatus for making concrete blocks, classified in class 425, subclass 219.
  - II. Claims 70-81, drawn to a method of molding, classified in class 264, subclass 40.1.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used in another and materially different process of molding a thermosetting, non-foaming resin or a thermoplastic resin. The apparatus can also be used to coat a preform pre-positioned in the mold or to mold between two preforms in the mold.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Mr. Makay (by Stephan Lechert of AU1732) on January 26, 2004 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-69. Affirmation of this election must be

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made by applicant in replying to this Office action. Claims 70-81 have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

#### ***Priority***

6. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 119(e) as follows:

An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification or in an application data sheet (37 CFR 1.78(a)(2) and (a)(5)). The specific reference to any prior nonprovisional application must include the relationship (i.e., continuation, divisional, or continuation-in-part) between the applications except when the reference is to a prior application of a CPA assigned the same application number.

#### ***Claim Objections***

7. Claims 63-67 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

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Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 63-67 attempt to further limit the ingredient metering assembly of apparatus claim 58 by further defining the ingredients in claims 63-66, and in claim 67, the temperature of one of the ingredients. The further defining of the ingredients does not further limit the structure of the apparatus of claim 58. It is suggested that applicant delete claims 63 and 67. It is suggested that claims 64-66 be amended to depend directly on claim 58 and amended to positively recite a vessel or other means for storing or feeding of each of the respective superplasticizer, water conditioner and accelerant. The mere listing of ingredients does not further limit the structure.

### ***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

9. Claim 43 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 43 is unclear as the claim recites that the station conveyor conveys one or more forms simultaneously to accommodate various production rates. It is unclear how one form can be conveyed simultaneously with itself, as the definition of simultaneous is to exist or occur at the same time.

### ***Double Patenting***

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 1, 19, 26-29 and 44 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2 and 4-8 of copending Application No. 10/374,886. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 1 in the copending application has the additional feature of a form assembly station that facilitates assembly of the form. It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the apparatus of the copending claim by removing the form assembly station as the assembly of the form can be done by hand.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1, 43 and 68 are rejected under 35 U.S.C. 102(b) as being anticipated by Russian reference (2078690 C1: figure 1 (clipped and enlarged by Derwent, and the English abstract listed as page 2 of the Russian document)).

The Russian reference teaches an apparatus for forming blocks of a foam-concrete blend (Page 2-English abstract-column 1), a plurality of block forms (1), a form loading station (8) which comprises a mixer for the foam-concrete blend which is connected to water and surfactant solution containers (Page 2-English abstract-end of column 2), a station conveyor made up of roller conveyors (6, 14), trolley (13) and turntable (5), a curing oven (9), and a block removal station along conveyor (14). The reference teaches a plurality of molds located on the variety of conveyors for simultaneous production of a plurality of blocks.

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

16. Claims 58, 59, 61-67 and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Russian reference taken together with Jensen (6,676,862: figures 1-4, 23A, 23B, 24 and 26, column 10, line 39 to column 11, line 67, column 14, line 58 to column 15, line 14, column 20, lines 37-50 and column 21, line 20 to column 22, line 20).

The Russian reference discloses an ingredient mixing assembly, but does not disclose an ingredient metering assembly, which delivers appropriate amounts of desired materials.

Jensen discloses a dry ingredient-mixing device (806) positioned below a dry ingredient-measuring device (822) comprising a plurality of hoppers (824, 826, 828) having computer controllable valves or discharge control mechanisms (830, 832, 834). The ingredients are measured in a weighing hopper (850) having an electronic scale. Heated water is fed to the mixer via a controllable valve (column 21, lines 65-67). The



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dispensing mechanism also has a dispensing hopper (862) between the mixer and the molds. It is inherent that a pump is used to feed water from the heater to the mixer.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the apparatus of the Russian reference by using an ingredient metering assembly as disclosed by Jensen for the purpose of forming batches of cementitious slurry with relatively consistent characteristics by using weighted amounts of dry ingredients and metered amounts of liquid ingredients (column 4, line 48 to column 5, line 15). It would have been further obvious to use a water heater for the water fed to the mixing device as disclosed by Jensen for the purpose of decreasing the cure time of the cementitious slurry to decrease the overall cycle time of forming a cement block. It would have been further obvious to use a hopper below the mixing device as disclosed by Jensen for the purpose of guiding the mixed material into the mold without spilling. It would have been further obvious to use a pump for feeding ingredients as such was a well-known manner of feeding liquids by ensuring appropriate pressure levels for reliable feeding.

17. Claims 55 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Russian reference taken together with Holik (5,564,823: figures 1-5; column 1, lines 61-67; column 2, lines 28-39 and 55-58; and column 3, lines 22-33 and 46-49).

The Russian reference discloses all claimed features except for a grinder to reduce the size of polystyrene pieces and an ingredient metering assembly.

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Holik discloses an apparatus for mixing and measuring components for lightweight concrete, which further includes a grinder (crusher) for reducing the size of recycled lightweight material.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the apparatus of the Russian reference by including a grinder to reduce the size of recycled components as disclosed by Holik for the purpose of incorporating waste materials into the composition to reduce material costs and the impact on landfills. It would have been further obvious to use an ingredient metering assembly as disclosed by Holik for the purpose of forming reproducible batches of concrete to reduce variation in the blocks produced by the apparatus.

18. Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Russian reference taken together with Jensen as applied to claims 58, 59, 61-67 and 69 above, and further in view of Holik.

The combination of the Russian reference and Jensen discloses all claimed features except for the use of an auger to feed the weighing hopper.

Holik discloses the use of augers 21, 22 to feed hoppers 11 and 12.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the combination by using an auger to feed the weighing hoppers as disclosed by Holik for the purpose of conveying solid materials. An auger is a well-known means of conveying solid particulate materials.

***Allowable Subject Matter***

19. Claims 2-42, 44-54, 56 and 57 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

20. The following is a statement of reasons for the indication of allowable subject matter: In regards to claim 2, none of the prior art teaches or suggests a block manufacturing apparatus as claimed in claim 1 wherein the form comprises a bottom assembly, whereby the bottom assembly couples with the station conveyor for conveyance, a wall assembly that seats on the bottom assembly and a cap that seats on the wall assembly. The closest prior art (Russian reference) discloses a roller conveyor with no coupling between the bottom assembly and the conveyor. The reference further fails to disclose or suggest a cap that seats on the wall assembly.

In regards to claim 19, the prior art fails to disclose or suggest the apparatus of claim 1 further comprising a cap removal replacement assembly, a screed assembly and a compression assembly that compresses the composite filled form, thereby sealing the composite therein. The closest prior art (Leach 3,419,648) discloses a cap removal/replacement assembly (28, 32) for filling a mold, but fails to disclose or suggest modification of the form supported by a conveyor as used by the Russian reference. The prior art further discloses numerous screed assemblies, but fail to disclose or suggest the combination claimed in claim 19.

In regards to claim 36, none of the prior art of record teaches or suggests an apparatus as claimed in claim 1 further comprising a track assembly that conveys the

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form along straight sections, a turnstile that conveys the form along curved sections, and a guide rail along straight and curved sections. The closest prior art (Russian reference) discloses straight roller conveyors and a turntable, but fails to disclose or suggest a turnstile and a track assembly having a guide rail. Henley (1,001,952) discloses a track assembly for a block making apparatus but fails to disclose or suggest the turnstile.

In regards to claim 44, the prior art fails to disclose or suggest the apparatus of claim 1 further comprising a lock assembly that locks the bottom assembly of the form in place, a bottom release assembly that uncouples the bottom assembly, walls and cap, a lift assembly that raises and lowers the wall assembly and cap of the form between levels, a wall release and engagement assembly that disassembles and reassembles the walls, whereby the walls disassemble releasing the unitary concrete block from the form and the walls reassemble for reuse of the form and a swing arm assembly that removes the unitary concrete block from the block removal station. The closest prior art (Russian reference) discloses a block removal station, but fails to disclose or suggest the structure claimed in claim 44.

In regards to claim 56, the prior art of record fails to disclose or suggest an apparatus as in claim 55 further comprising a coarse grinder and a fine grinder that reduces polystyrene into small particles. The closest prior art (Holik) discloses a grinder, but fails to disclose or suggest a two-stage grinder for use in a block manufacturing apparatus.

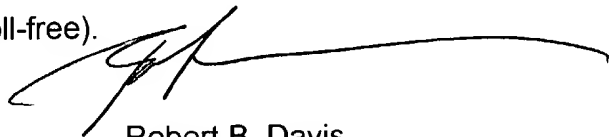
**Conclusion**

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The remaining references show the state of the art in the block molding art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert B. Davis whose telephone number is 571-272-1129. The examiner can normally be reached on Monday-Friday 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Robert B. Davis  
Primary Examiner  
Art Unit 1722

3/12/04